



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

January 14, 2015

Mark Pattillo
Regulatory Branch, CESWG-PE-RCC
U.S. Army Corps of Engineers
5151 Flynn Parkway, Suite 306
Corpus Christi, Texas 78411-431

Dear Mr. Pattillo:

The Environmental Protection Agency (EPA) Region 6 has reviewed Public Notice (PN) SWG-2014-00848, dated December 16, 2014. The project is located adjacent to the La Quinta Ship Channel, west southwest of Ingleside, in San Patricio County, Texas. The project can be located on the U.S.G.S. quadrangle map titled: Port Ingleside, Texas.
Latitude: 27.860779 North; Longitude: 97.241902 West

The applicant, Cheniere Liquids Terminal, LLC, proposes to construct a crude condensate storage and marine loading terminal. Primary project features include a dual vessel berthing area capable of mooring and loading barges and ships, two docks, an onsite Dredged Material Placement Area (DMPA) located in uplands, and various landside support infrastructure, such as storage tanks, roads, parking areas and administrative buildings that would be constructed in uplands. The proposed vessel berth would be dredged to -45 feet Mean Low Tide (MLT) plus 2 feet advanced maintenance and 2 feet allowable overdepth. Approximately 2.6 million cubic yards of stiff clay would be dredged using both mechanical and hydraulic methods in association with the approximately 40-acre basin proposed for the berthing area. A rock revetment would be constructed along the side slopes of the proposed berth, with approximately 20,000 cubic yards of rock material placed across approximately 2 acres below the annual high tide line (AHT). The two proposed docks and associated marine structures would be 130 feet wide and 185 feet long. Construction (dredging and excavation) of the proposed berthing area would result in impacts to 2.87 acres of submerged aquatic vegetation (SAV) and 0.67 acre of estuarine wetlands located on the La Quinta Channel shoreline. In addition, 0.04 acre of SAV and 0.1 acre of estuarine wetlands in close proximity to the proposed top of slope may be impacted by equipment accessing the construction area or by long-term sloughing along the top of slope.

The western project boundary is characterized by a steep bluff that partitions the majority of the eastern part of the site from the intertidal shoreline that runs along the toe of the bluff and the La Quinta Ship Channel. Wetlands and other vegetated special aquatic sites in this area consist of

smooth cordgrass marsh, black mangrove/saltwort complex, vegetated flats (saltwort and glasswort), high marsh (shoregrass, sea-oxeye daisy, camphor daisy), and submerged aquatic vegetation (shoalgrass and manatee grass). The interior portion of the site is a large upland shrub/scrub (thorny brush) community that occurs between the vertical bluff along the western property boundary and Avenue B. The eastern portion of the site along Kinney Bayou comprises a large upland shrub/scrub (thorny brush) community, an active DMPA and Kinney Bayou. Kinney Bayou is a natural drainage-way that has been channelized throughout the northern reach (approximately half of the drainage-way). Kinney Bayou conveys stormwater drainage and wastewater effluent from the City of Ingleside wastewater treatment plant to Corpus Christi Bay via the Jewell Fulton Canal. A complex of emergent wetlands, transitioning from estuarine at the confluence with Jewell Fulton Canal to freshwater further upstream, borders the approximate southern half of Kinney Bayou. The total wetland area (not including the area between the OHWM of Kinney Bayou) is 22.52 acres.

The applicant has stated that they have avoided and minimized the environmental impacts by confining landside support infrastructure to upland (non-jurisdictional) areas. The applicant proposed to mitigate for the proposed impacts by creating a 10-acre mosaic of submerged and intertidal habitat from uplands located onsite.

The following comments are being provided for use in reaching a decision relative to compliance with the EPA's 404(b)(1) *Guidelines for the Specification of Disposal Sites for Dredged or Fill Material* (40 CFR Part 230).

- We recommend the applicant conduct an alternatives analysis to determine the least damaging practicable alternative, as per the 404(b) (1) Guidelines.
- Dredging can have indirect negative effects on seagrasses through increased turbidity and light attenuation in the water column, and by burial due to sedimentation. The Laguna Madre ICT recommended to the USACE in the past, based on scientific studies funded by the USACE, that dredging be limited to the seagrass dormant period, November-February. We recommend the COE include a requirement in the permit that the applicant be restricted to dredging, and discharge from the DMPA, during the seagrass dormant period, November-February.
- In addition, we recommend the applicant demonstrate, prior to permit issuance, discharges from the DMPA will not result in water quality criteria not being met, including general criteria, such as those dealing with total suspended solids and the maintenance of aquatic vegetation. Additionally, we recommend the applicant demonstrate that the proposed discharge from the DMPA will not compromise the Seagrass Propagation designated use, under the Texas water quality standards. Seagrasses potentially at risk due to increased turbidity and light attenuation, due to the effects of the effluent discharge from the DMPA, could include beds within 1 mile of the discharge. This estimate is based on similar statements made by the Laguna Madre ICT, regarding the potential effects of dredged material discharges on seagrasses.
- We recommend the permit include requirements for the applicant to employ all best management practices typically required of dredging and construction projects in the immediate vicinity of seagrasses, to minimize increases in light attenuation on seagrass beds due to increased total suspended solids.

- We recommend the applicant consider beneficial use of the dredged material for habitat restoration/creation, rather than disposal in dredged material placement areas (DMPAs), assuming the dredged material is *suitable material, free from toxic pollutants*.
- Based on our review of the available data, there don't seem to be any strong suggestions of contaminant problems in the vicinity of the proposed project. However, we still recommend testing of proposed dredged material prior to permit issuance.
- Section 230.10(b) (1) prohibits the disposal of dredged material that might violate applicable water quality standards, after consideration of disposal site dilution and dispersion. The CWA regulatory mandate for confined disposal facility (CDF) effluent and runoff discharges is very specific. The discharge of effluent from a CDF is defined as a dredged material discharge in 33 CFR 323.2(d) and 40 CFR 232.2(e). The U.S. Army Corps of Engineers (USACE) has issued a Nationwide Permit (NWP 16) at 33 CFR 330.5 to satisfy the technical requirements for Section 404 permits for return water (e.g. effluent) where the quality of the return water is regulated by States through their Section 401 certification processes. However, USACE has determined that the conditioned Section 401 certification placed upon NWP 16 by the Texas Commission on Environmental Quality (TCEQ) is not reasonably implementable or enforceable, according to 33 CFR 325.4(c). So, USACE has determined that prior to the performance of hydraulic dredging, the applicant must obtain a Section 401 water quality certification from the TCEQ for the effluent or return water discharge.

USACE authorizations and evaluations are therefore not required when *uncontaminated* dredged material is placed in a CDF, where the effluent or runoff into waters of the United States is certified as complying with applicable state Section 401 water quality certification requirements. Thus, contaminant testing does not apply to discharges of *uncontaminated* dredged material into CDFs where there is no reason to believe that contaminants might be released into the environment. However, the NWP does not authorize the disposal of contaminated sediments at CDFs where there might be release of contaminants into the environment. The nationwide permit does not relieve permit applicants from ensuring that contaminants are not released into the environment either at the effluent discharge point or from the disposal site proper. In fact, special conditions at 33 CFR 330 require that "any discharge of dredged or fill material shall consist of suitable material free from toxic pollutants." Therefore, contaminant testing does apply in cases where *contaminated* dredged material is proposed for disposal in a CDF, and there is the potential for release of contaminants.

- We recommend the applicant provide recent data describing the quality of the material proposed to be dredged and disposed. Existing information is acceptable, assuming it is less than five years old, a broad suite of contaminants was measured, and appropriate sample collection and laboratory analytical methods were used, including appropriate detection limits. Excellent guidance is available to support the collection and interpretation of such data:

- If new sampling and analysis are to be conducted, assuming the dredged material is to be disposed of in DMPAs, as proposed, we strongly recommend the focus be on elutriate testing of the sediments, using Evaluation of Dredged Material Proposed for Disposal at Island, Nearshore, or Upland Confined Disposal Facilities — Testing Manual ([http://yosemite.epa.gov/r10/cleanup.nsf/0/fa0745084bfac55688256e5d000a382f/\\$FILE/trel03-1.pdf](http://yosemite.epa.gov/r10/cleanup.nsf/0/fa0745084bfac55688256e5d000a382f/$FILE/trel03-1.pdf))
- If however, the dredged material is to be used beneficially, as we recommend, we strongly recommend using the following guidance: Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. - Testing Manual http://water.epa.gov/type/oceb/oceandumping/dredgedmaterial/upload/2009_10_09_oceans_regulatory_dumpdredged_itm_feb1998.pdf
- In addition to providing sediment contaminant data, we recommend the applicant determine whether water quality criteria would be expected to be met at the discharge from the DMPA, as described in the Upland Testing Manual. Depending on the approach taken, this can range from simple comparison of elutriate sample results to water quality criteria, to simple calculations, or more complex modeling. Note also that since the applicant has proposed several alternative placement areas, this will require the applicant to demonstrate that water quality criteria will be met at the discharge from all of them. This could be simplified by proposing a single DMPA.
- In addition to determining whether the discharge of effluent from the DMPA will result in water quality criteria being met, based on an evaluation of the quality of proposed dredged material, we recommend this assessment also consider the quality of soil from the excavation of the wetland mitigation area, since it is proposed to be disposed of in the DMPA. This will require that soil proposed for excavation of the wetland mitigation area be tested for contaminants, similar to what is required for dredged material.
- Finally, we have significant concerns regarding the proposed mitigation. Specifically, we are concerned that the proposed location for mitigation, near the mouth of Kinney Bayou, does not seem particularly conducive to seagrass growth. While the proposed site would be slightly removed from Kinney Bayou and would have its own separate (but connected) waters, we would expect these waters to be less saline than a typical Texas seagrass bed, and potentially more turbid and with higher nutrient loading. We recommend you either require the applicant to provide evidence that these concerns are not valid, or require them to propose another alternative mitigation proposal, at least for seagrasses.

If you have any questions on these comments, please contact Ken Teague of my staff at 214-665-6687.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Tom Nystrom", with a long horizontal flourish extending to the left.

Tom Nystrom
Acting Chief
Wetlands Section

cc: Jackie Robinson, Texas Parks & Wildlife Department
Heather Young, NOAA Fisheries
Pat Clements, USFWS
TCEQ